



Steven L. Beshear
Governor

ENERGY AND ENVIRONMENT CABINET

Department for Environmental Protection
Division of Waste Management
200 Fair Oaks Lane
Frankfort, Kentucky 40601-1190
www.kentucky.gov

Leonard K. Peters
Secretary

MEMORANDUM

SUBJECT: Evaluation of the Kenton County Airport Board's status under the RCRAInfo Corrective Action Environmental Indicator Event Codes
CA400 and CA500
EPA I.D. Number: KYD 980-557-516
TEMPO Agency Interest Number: 197

TO: April J. Webb, PE, Manager *AW*
Hazardous Waste Branch

THROUGH: Bart Schaffer, PG, Supervisor *BS*
Hazardous Waste Corrective Action Section

FROM: Chris Jung, PG *CJ*
Hazardous Waste Corrective Action Section

DATE: September 30, 2010

I. *PURPOSE OF MEMO*

The purpose of this memo is to document the status of the Kenton County Airport Board in relation to the following corrective action event codes recently redefined in RCRAInfo data management system. The Kenton County Airport Board has successfully achieved the following for the *entire* facility.

- 1.) Remedy Decision Determination (CA400)
- 2.) Remedy Construction Determination (CA550)

Kenton County Airport Board will have a CA400 Yes and a CA550 YES entered into RCRAINFO for this date: September 30, 2010.

Concurrence by the Hazardous Waste Branch Manager is required prior to entering these event codes into RCRAInfo. Your concurrence with the interpretations provided in the following paragraphs and the subsequent recommendations is satisfied by initialing above.

II. REMEDY CONSTRUCTION DETERMINATION (CA550)

There are two (2) national status codes under CA550. These status codes are:

- 1) *NR-No Remedy Constructed*
- 2) *RC-Remedy Constructed*

Note that the two national status codes for CA550 are based on the entire facility (i.e., the codes are not SWMU specific). Therefore, every area at the facility must meet the definition before a NR or RC status code can be entered for CA550.

III. FACILITY BACKGROUND/CHRONOLOGY

The Kenton County Airport Board is located south of the Indiana-Ohio-Kentucky border junction near the city of Florence, Kentucky. The business offices are located at 2939 Terminal Drive, Hebron, Kentucky.

The airport operated as a Conditionally Exempt Generator (CEG). An RFA was completed on September 23, 2002. According to the RFA a total of 50 SWMUs and 2 AOCs were identified. Sampling was recommended for the following SWMUs & AOCs:

- SWMU1A - Stationary Ranges
- SWMU 1B - Skeet Range
- SWMU 1 – Former Firing Range
- SWMU 10A – Staging Area
- SWMU 10 – Street Sweeping Area
- SWMU 36B - Waste Oil Collection Drain and Underground Storage Tank (UST)
- SWMU 46C – Waste Oil Tank
- AOC A – Fumigation Area
- SWMU 8A & 8B – Glycol Above Ground Storage Tanks (added after RFA)

Integrity testing was required for the following:

SWMU 31 – Glycol Pipeline System
 SWMU 32 – Storm Sewer System
 SWMU 36B – National Alamo Underground Piping

Documentation was required for the following:

AOC B – UST Removal Sites

Kenton County Airport Board was discovered as a non-notifier of hazardous waste in the eighties. The airport had been storing drums of F003 and F005 listed hazardous waste without the proper registration near a fire fighter burn pit. The airport used off-spec commercial grade fuel for the training exercise. The Division of Waste Management (DWM) issued a Notice of Violation (NOV) on February 10, 1989 for failure to submit a closure plan.

An Agreed Order was executed on September 19, 1990 and required the facility to identify all corrective action units; close the burn pit and storage area in accordance with 401 KAR 34:070; perform Corrective Action for remediation of groundwater and/or soil contamination; and groundwater monitoring.

IV. SUPPORT FOR CONCLUSION

Groundwater:

All wells evidenced concentrations below the MCL or below the method detection limit.

Soil:

Corrective action of the soils at the SWMUs and AOC identified in the RFA is complete. Impacted soils were removed and/or managed through the use of an environmental covenant. Contaminants of concern remain in the soils above residential Preliminary Remedial Goals (PRGs) for Total Petroleum Hydrocarbons (TPH) and Lead.

Document Review Summary:

Closure Report	June 17, 1999
RCRA Facility Assessment	March 12, 2002
Confirmatory Sampling Report	July 16, 2004
Interim Measures Report	February 22, 2005
Site Investigation Report	April 26, 2005
Confirmatory Sampling Report	August 27, 2007
Site Management Plan	September 17, 2010

V. CONCLUSION FOR REMEDY DECISION (CA400)

The appropriate status code to be entered for RCRAInfo event code CA400 (Remedy Decision) is YES. The site has an environmental covenant that restricts the land use to industrial.

CONCLUSION FOR REMEDY CONSTRUCTION (CA550)

The appropriate status code to be entered for RCRAInfo event code CA550 (Remedy Construction) is YES *RC- Remedy Constructed*. The site has an environmental covenant that restricts the land use to industrial.



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September 30, 2010

SUBJ: Evaluation of Kenton County Airport Board under the RCRA Info Corrective Action Environmental Indicator Event Codes CA725 and CA750
EPA I.D. # KYD 980-557-516
AI # 197

TO: April J. Webb, P.E., Manager *AW*
Hazardous Waste Branch
Division of Waste Management

THRU: Bart Schaffer, P.G., Supervisor *BS*

FROM: Chris Jung, P.G. *CJ*

I. PURPOSE OF MEMO

This memo is written to formalize an evaluation of the Kenton County Airport Board's status in relation to the following corrective action event codes defined in the Resource Conservation and Recovery Act Information System (RCRA Info):

- 1) Human Exposures Controlled Determination (CA725),
- 2) Groundwater Releases Controlled Determination (CA750).

The application of these event codes at the Kenton County Airport Board adheres to the event code definitions found in the Data Element Dictionary for RCRA Info.

Concurrence by the Hazardous Waste Branch Manager is required prior to entering these event codes into RCRA Info. Your concurrence with the interpretations provided in the following paragraphs and the subsequent recommendations is satisfied by dating and signing above.

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name:	Kenton County Airport Board
Facility Address:	2939 Terminal Drive, Hebron, KY
Facility EPA ID #:	KYD 980-557-516

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

☒ If yes - check here and continue with #2 below.

☐ If no - re-evaluate existing data, or

☐ If data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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- | | <u>Yes</u> | <u>No</u> | <u>?</u> | <u>Rationale / Key Contaminants</u> |
|-----------------------------|------------|-----------|----------|-------------------------------------|
| Groundwater | | X | | |
| Air (indoors) ² | | X | | |
| Surface Soil (e.g., <2 ft) | | X | | |
| Surface Water | | X | | |
| Sediment | | X | | |
| Subsurf. Soil (e.g., >2 ft) | X | | | Lead and TPH |
| Air (outdoors) | | X | | |

appropriate “levels,” and referencing sufficient supporting documentation demonstrating that these “levels” are not exceeded.

If unknown (for any media) - skip to #6 and enter "IN" status code.

Environmental concerns at the Former Firing Range (SWMUIC) firing range stemmed from the use of lead slugs fired at the stationary ranges and from lead shot and asphaltic clay targets used at the skeet range. At the stationary ranges slugs were embedded in the earthen backstop berm and were concentrated in the eroded impact zones directly behind the targets. Based upon information gathered during the soil assessment soils in the berms behind the targets contained sufficient amounts of lead to exceed the Toxicity Characteristic Leaching Procedure (TCLP).

Supporting Documentation:

Closure Report	June 23, 1999
RCRA Facility Assessment	March 12, 2002
Site Investigation Report	September 17, 2010

Footnotes:

¹ "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPI, and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

² Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
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3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

<u>Contaminated Media</u>	Potential <u>Human Receptors</u> (Under Current Conditions)						
	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food ³
Groundwater	_____	_____	_____	_____	_____	_____	_____
Air (indoors)	_____	_____	_____	_____	_____	_____	_____
Soil (surface, e.g., <2 ft)	_____	_____	_____	_____	_____	_____	_____
Surface Water	_____	_____	_____	_____	_____	_____	_____
Sediment	_____	_____	_____	_____	_____	_____	_____
Soil (subsurface e.g., >2 ft)	N_____	N_____	N_____	N_____	N_____	N_____	N_____
Air (outdoors)	_____	_____	_____	_____	_____	_____	_____

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.
2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media – Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("_____"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

☒ If no (pathways are not complete for any contaminated media-receptor combination) -skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

_____ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

_____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

_____ The site has a vegetated cover and environmental covenant restricting land use and disturbance of the cover.

³ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be “significant”⁴ (i.e., potentially “unacceptable” because exposures can be reasonably expected to be:

_____ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

[illegible]

⁴ If there is any question on whether the identified exposures are “significant” (i.e., potentially “unacceptable”) consult a human health Risk Assessment specialist with appropriate education, training and experience.

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- Rationale and Reference(s):

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Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

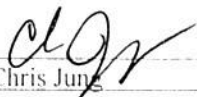
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6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

☒ **YE - Yes**, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Kenton County Airport Board facility, EPA ID #KYID 980-557-519, located at 2939 Terminal Drive, Hebron, KY under current and reasonably expected conditions.
This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

☐ **NO - "Current Human Exposures" are NOT "Under Control."**

☐ **IN - More information is needed to make a determination.**

Completed by (signature)  Date 9/30/10
(print) Chris Jung
(title) Registered Geologist

Supervisor (signature)  Date 9/30/10
(print) Bart Schaffer
(title) Geologist Registered Supervisor
(EPA Region or State) KY

Locations where References may be found:

Kentucky Division of Waste Management file room
200 Fair Oaks Lane
Frankfort, KY 40601

Contact telephone and e-mail numbers

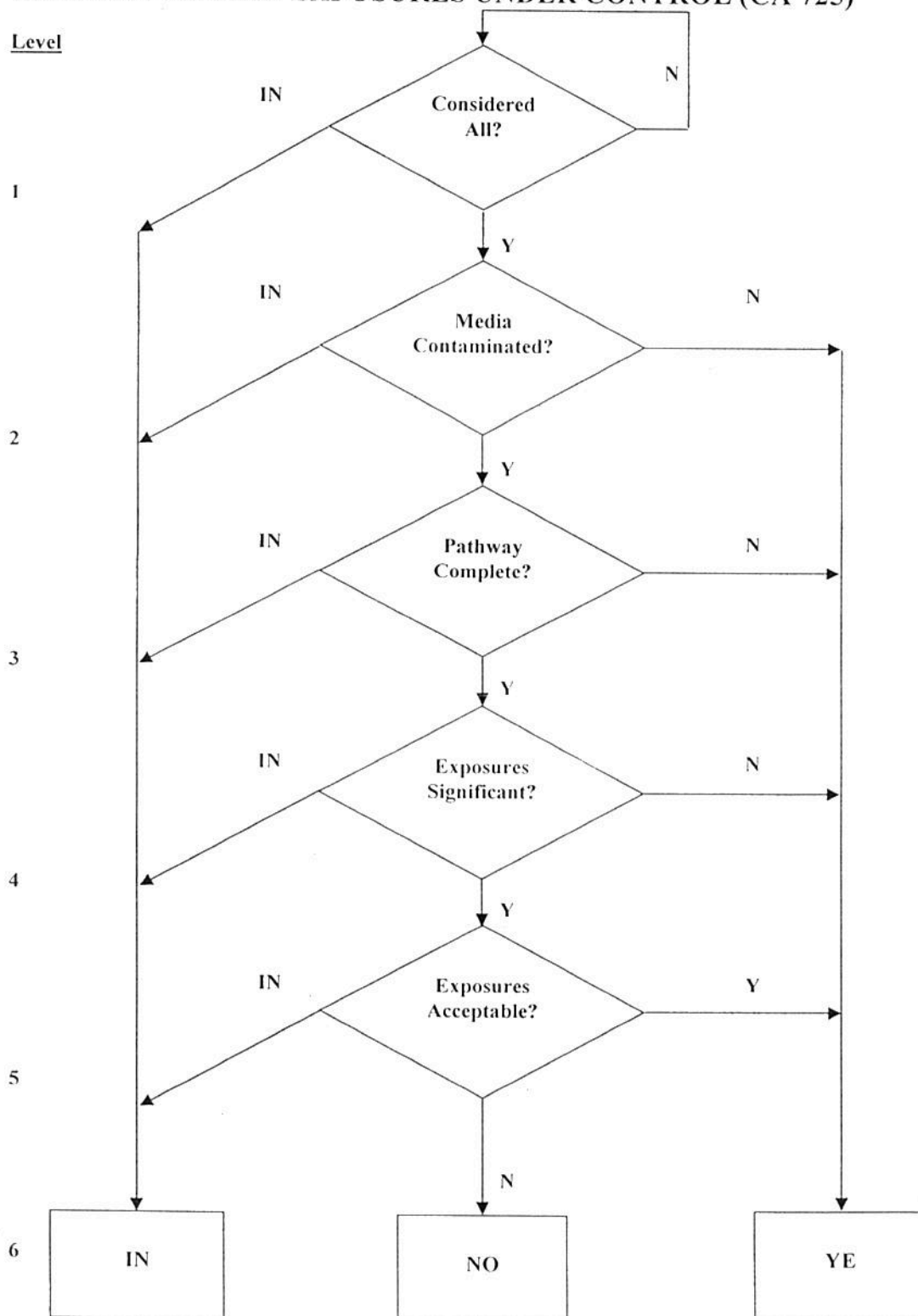
(name) Tina Fisher
(phone #) 502-564-6716
(e-mail) Tina.fisher@ky.gov

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

Facility Name: Kenton County Airport Board
EPA ID#: KYD 980-557-516
City/State: Hebron, KY

CURRENT HUMAN EXPOSURES UNDER CONTROL (CA 725)

Level



DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name:	Kenton County Airport Board
Facility Address:	2939 Terminal Drive, Hebron, KY
Facility EPA ID #:	KYD 980-557-516

1. Has **all** available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

☒ **X** If yes - check here and continue with #2 below.
☐ If no - re-evaluate existing data, or
☐ if data are not available, skip to #8 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains **ONLY** to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database **ONLY** as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s): _____

“existing area of contaminated groundwater” is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of “contamination” that can and will be sampled/tested in the future to physically verify that all “contaminated” groundwater remains within this area, and that the further migration of “contaminated” groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

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_____ If yes - continue after identifying potentially affected surface water bodies.

_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s): _____

**Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)**

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5. Can the **discharge** of “contaminated” groundwater into surface water be shown to be “**currently acceptable**” (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented⁴)?

- _____ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment “levels,” as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.
- _____ If no - (the discharge of “contaminated” groundwater can not be shown to be “**currently acceptable**”) - skip to #8 and enter “NO” status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.
- _____ If unknown - skip to 8 and enter “IN” status code.

Rationale and Reference(s): _____

⁴Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

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____ If unknown - enter "IN" status code in #8.

[illegible]


Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)
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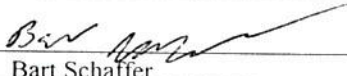
8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

☒ **YE** - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the the Kenton County Airport Board facility, EPA ID #KYD 980-557-516, located at 2939 Terminal Drive, Hebron. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

☐ **NO** - Unacceptable migration of contaminated groundwater is observed or expected.

☐ **IN** - More information is needed to make a determination.

Completed by (signature)  Date 9/30/10
(print) Chris Jung
(title) Registered Geologist

Supervisor (signature)  Date 9/30/10
(print) Bart Schaffer
(title) Geologist Registered Supervisor
(EPA Region or State) KY

Locations where References may be found:

Kentucky Division of Waste Management file room
200 Fair Oaks Lane
Frankfort, KY 40601

Contact telephone and e-mail numbers

(name) Tina Fisher
(phone #) 502-564-6716
(e-mail) Tina.fisher@ky.gov

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

Facility Name: Blue Grass Airport
EPA ID#: KYD 096-552-161
City/State: Lexington, KY

**MIGRATION OF CONTAMINATED GROUNDWATER
UNDER CONTROL (CA 750)**

